AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-247

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-247.01
Reminder: September 15 Deadline to Return Board of Directors Ballots

AMSAT News Service Bulletin 247.01
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.01

Ballots for the AMSAT-North America 2011 Board of Directors election have been mailed to all members. To have your vote count you must return your ballot by mail to:

AMSAT-NA
850 Sligo Ave #600
Silver Spring, MD, 20910

Ballots must arrive at the AMSAT Office by the close of business, September 15, 2011.

Four director's terms expire this year:

Barry Baines, WD4ASW
Alan Biddle, WA4SCA
Drew Glasbrenner, KO4MA
Tony Monteiro, AA2TX

Seven nominations have been received for the open seats. Listed alphabetically they are:

Barry Baines, WD4ASW
Alan Biddle, WA4SCA
Steve Coy, K8UD

Drew Glasbrenner, KO4MA
Mark Hammond, N8MH
Tony Monteiro, AA2TX
Patrick E. Stoddard, WD9EWK

Select no more than four candidates on your ballot. The four candidates receiving the highest number of votes will be seated as full Board members for two year terms. The two candidates receiving the next highest number of votes will be seated as alternate Board members for one year terms.

[ANS thanks the AMSAT Office the above information]

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SB SAT @ AMSAT $ANS-247.02
ARISSat-1 LIVE Telemetry Web Page Now Operational

AMSAT News Service Bulletin 247.02
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.02

ARISSatTLM software author, Douglas Quagliana, KA2UPW/5 says a new ARISSat-1/KEDR telemetry web page is now available at:

http://www.arissattlm.org/live

The new telemetry page is intended to be viewed on a computer (or large screen computing device). It shows all of the telemetry values that you would see if you were running ARISSatTLM at your station.

The data on this page is updated once a minute when ground stations are within range of ARISSat-1/KEDR and forwarding live telemetry received via ARISSatTLM. Since it depends on stations forwarding telemetry over the Internet, there will occasionally be periods without any updates.

The original ARISSat-1/KEDR telemetry page is still up and running. (see: http://www.arissattlm.org/mobile). The difference is that the "mobile" page is designed to be viewed on a cellphone or other small screen computing device.

Both pages are updated at the same time from the same telemetry. The "live" page just shows more telemetry.

Please keep forwarding in your telemetry over the Internet. Also, if you received any telemetry from ARISSat-1, even if you are forwarding, please email the .CSV file(s) to: [telemetry at arissattlm dot org]. The .CSV files are in the "Telemetry" folder which is in the ARISSatTLM folder on your desktop.

[ANS thanks Douglas Quagliana, KA2UPW/5 for the above information]

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SB SAT @ AMSAT $ANS-247.03
Merritt Island High School ARISS Contact is Successful

AMSAT News Service Bulletin 247.03
>From AMSAT HQ SILVER SPRING, MD.

September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.03

Now up to 665 ARISS contacts from the ISS to school contacts the International Space Station school contact with Merritt Island High School, Merritt Island, Florida on August 30 added another success.

The contact was a direct link between NA1SS and WB2IHB. "NA1SS, NA1SS, NA1SS, this is WB2IHB in Merritt Island, Florida." Then, a crackle. "I read you loud and clear," said Japanese Astronaut Satoshi Furukawa. Fourteen-year-old Brandon Arena was first in line to ask Furukawa a question. So began the contact. The Florida Today newspaper reported on the event and the enthusiastic student response at:
http://www.floridatoday.com/apps/pbcs.dll/article?AID=2011108310317

The link above includes a video, and photos along with a report of the event that was well received by the students and their parents and teachers.

Merritt Island High is a public high school with a student population of 1500. Sixty of these students are members of the Da Vinci Academy of Aerospace Technology, where these engineering-minded students take part in the "Project Lead the Way" engineering curriculum. Fifteen students were selected from the Academy to engage the astronaut in a question and answer session as the ISS passed over the school.

ARISS is an international educational outreach program partnering the participating space agencies, NASA, Russian Space Agency, ESA, CNES, JAXA, and CSA, with the AMSAT and IARU organizations from participating countries.

ARISS offers an opportunity for students to experience the excitement of Amateur Radio by talking directly with crewmembers on-board the International Space Station. Teachers, parents and communities see, first hand, how Amateur Radio and crewmembers on ISS can energize youngsters' interest in science, technology, and learning.

Further information on the ARISS program is available on the website http://www.ariss.org/ (graciously hosted by the Radio Amateurs of Canada).

[ANS thanks ARISS PR Chairman David Jordan, AA4KN, and Florida Today for the above information]

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SB SAT @ AMSAT $ANS-247.04
University of Alabama Students Test CubeSat Via Balloon Launch

AMSAT News Service Bulletin 247.04
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.04

The Space Hardware Club at the University of Alabama in Huntsville is student organization. They conceptualize, design, build, test and fly flight hardware for high altitude balloons, the CubeSat platform, and the CanSat competition.

UAHuntsville's Space Hardware Club's 15th BalloonSat mission was

completed on August 26. Balloon and payloads were launched from the National Space Science and Technology Center (NSSTC) in Huntsville, Alabama. Payloads included a CubeSat radio test, a 900 MHz radio test, dual APRS tracking package on 2m and 70cm, and neutron detector collecting data for NSSTC.

Their YouTube videos of the launch can be viewed on-line at: http://tinyurl.com/3dkeqqt (southgatearc.org)

Additional information about the UAHuntsville Space Hardware Club can be found at: http://sites.google.com/site/uahshc/

[ANS thanks Southgate ARC News and the UAHuntsville Space Hardware Club for the above information]

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SB SAT @ AMSAT $ANS-247.05
SDR-Radio Software Adds Support for AMSAT-UK FUNcube Dongle SDR

AMSAT News Service Bulletin 247.05
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.05

AMSAT-UK's FUNcube is an educational single cubesat project with the goal of enthusing and educating young people about radio, space, physics and electronics. FUNcube will carry a UHF to VHF linear transponder that will have up to 1 watt and which can be used by Radio Amateurs worldwide for SSB and CW communications. Measuring just 10 x 10 x 10 cm, and with a mass of less than 1kg, it will be the smallest ever satellite to carry a linear transponder

It will support the educational Science, Technology, Engineering and Math (STEM) initiatives and provide an additional resource for the GB4FUN Mobile Communications Centre.

The target audience consists of primary and secondary school pupils and FUNcube will feature a 145 MHz telemetry beacon that will provide a strong signal for the pupils to receive.

A simple SDR receiver board (FUNcube Dongle) has been developed to support this mission by providing a simple radio interface to the classroom. The FUNcube Dongle connects to the USB port of a laptop to display telemetry and messages in an interesting way for students.

But, even before FUNcube has been launched amateur satellite operators have discovered that the 64 MHz to 1,700 MHz coverage of this Software Defined Radio receiver can be used for most amateur, along with some weather and commercial satellite reception.

This week, Simon Brown, GD4ELI/HB9DRV, announced he has enhanced his popular SDR-RADIO software to provide support for the AMSAT-UK FUNcube dongle software defined radio. The SDR-RADIO.com software has been upgraded to provide full support for the FUNcube dongle including satellite tracking, Doppler compensation and data for external rotator software via DDE. This free software can be downloaded from http://www.sdr-radio.com/

For more information on the FUNcube project please visit: http://www.funcube.org.uk

For the latest news on the FUNcube SDR dongle visit:
http://www.funcubedongle.com/

You can join the FUNcube Yahoo Group at:
http://uk.groups.yahoo.com/group/FUNcube/

[ANS thanks AMSAT-UK, Southgate ARC News, and Simon Brown for the
 above information]

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SB SAT @ AMSAT $ANS-247.06
Two Satellite Presentations Scheduled for California in September

AMSAT News Service Bulletin 247.06
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.06

Clint Bradford, K6LCS will have two "How to Work the Amateur FM Sat-
ellites With Your HT" presentations in September.

Sonoma County Radio Amateurs General Meeting

Wednesday, September 7, 2011 - 7:00PM
Luther Burbank Art & Garden Center
2050 Yulupa Avenue, Santa Rosa CA 95405

AMSAT area coordinator Clint Bradford, K6LCS, will be presenting his
"Working Amateur Satellites With Your HT" session at the September 7,
2011 meeting of the Sonoma County Radio Amateurs. ALL are welcome to
attend.

"The Sonoma County club has been serving their region for more than
SEVENTY years," writes Clint. "I am really looking forward to meet-
ing the group!"

Clint's in Southern California - but has prepared a custom slideshow
for the Sonoma County club, which will be displayed live at the meet-
ing, as Skype handles the session's audio. "I'd much rather be there
in person - but this arrangement has worked quite successfully in the
past. We'll have a great time!"

Attendees should visit Clint's Web site ahead of time at ...
http://www.work-sat.com ... and download the four-page .pdf tutorial.
Clint welcomes pre-presentation questions - call him at 909-241-7666
(cell) or send email to clint@clintbradford.com .

ARRL Southwestern Division Convention

Saturday, September 10, 2011 - Noon
Marriott Torrance South Bay: 3635 Fashion Way, Torrance, CA 90503

Clint says, "We have tentative passes of SO-50, ARISSat-1, AO-27, and
AO-51 throughout the day Saturday - Watch for the exact times at the
check-in table! Clint will be presenting his "Working Satellites With
Your HT" at Noon in Suites 9-11.

Additional Presentation Resources

Clint Bradford, K6LCS, has given his "How to Work the FM Ham Satel-
lites With Your HT" presentation more than 60 times the past three

years - and knows how to motivate and educate his audiences. He has just created a Web page that describes how others can make THEIR presentations informative, effective, and - most importantly - FUN for audiences ...

http://web.me.com/clintbradford/Work-Sat/Presentations.html

Just written this week, but Clint will be including "tips and techniques" from professional presenters - such as Bill Gates, Steve Jobs, and others - as this Web page grows in the next few weeks.

[ANS thanks Clint Bradford, K6LCS for the above information]

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SB SAT @ AMSAT $ANS-247.07
Satellite Shorts From All Over

AMSAT News Service Bulletin 247.07
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
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+ This is a reminder to those who use Twitter about a service called @twisst, which you can use to notify you when the International Space Station is going to be passing overhead in your region. It pulls your location from your profile, and then calculates good viewing times for you to see the station. All you have to do is follow the Twitter account: http://twitter.com/#!/twisst

+ A nice photograph of northwestern Europe at night, as seen from the International Space Station on August 10, 2011 can be viewed at: http://www.universetoday.com/wp-content/uploads/2011/08/from-space.jpg The landscape is dotted with clusters of lights from individual urban areas; visible are London, Paris, Brussels, Milan and Amsterdam, which stand out due to their large light "footprints," while the English Channel is completely dark. To give a sense of scale, the centers of the London and Paris metropolitan areas are approximately 340 kilometers (210 miles) from each other.

+ Read the story at http://tinyurl.com/3etozte (UniverseToday.com) about why the Large Hadron Collider will not destroy the Earth and you'll have something to talk about on 75M if the other guy gets stuck on the weather and the state of his gallbladder.

+ Outgoing space shuttle Program Manager John Shannon has received an assignment to carry out an independent assessment of competing options for eventual manned missions beyond low-Earth orbit. Read the story at: http://spaceflightnow.com/news/n1108/29shannon/

+ EE Times - ARISSat Blog now has the sixth and seventh entries in EE (Electronic Engineering) Times "Chips in Space" blog about ARISSat-1:
Chips in Space: Let's look inside ARISSat-1 (part 2)
http://tinyurl.com/4y2tn8g (eetimes.com)
Chips in Space: Let's look inside ARISSat-1 (Part 3)
http://tinyurl.com/3hffv3v (eetimes.com)

+ Edge Of Space Sciences will be flying three high altitude balloons for NOAA on Saturday September 10th at 6:50 AM MDT (UTC - 6) out of Windsor, Colorado, USA. Payload weight of 20+ Lbs flying NOAA Aircore's. EOSS flight numbers 168, 169 and 170 will be a mix of two 3000 and one 2000 gram helium balloons. Mission details can

be found on their web page: http://www.eoss.org/flight/index.html

+ Steer the kids over to http://spaceplace.nasa.gov/ where they can learn about astronomy, the solar system, galaxies, the Earth at a fun level. Hundreds of interactive pages let them play scientific video games, print pictures to color, visit space image galleries, make creative scientifc projects at home.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-247.08
IARU Region 1 Meeting Addresses Interference to 2-Meter Satellite Band

AMSAT News Service Bulletin 247.08
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
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The International Amateur Radio Union (IARU) Region 1 meeting in Sun City, South Africa this week noted that several Italian repeaters are currently causing on-going interference to satellite uplinks and down-links in the Amateur Satellite Service segment from 145.8-146.0 MHz.

While the IARU R1 decision stressed the importance of the satellite service they also noted that coordination is needed to continue to introduce new modes. The IARU R1 C5 committee report recommended that the D-STAR repeaters/nodes that continue operation in contra-diction to the IARU-R1 band plans be disconnected from the inter-national D_STAR network.

The IARU-R1 Sun City conference SC11_C5_16 committee meeting notes say that initial methods listed below were passed unanimously:

1. Write the repeater operator to remove [their operating frequency] out of the satellite segment.
2. Inform the trust server operator of the IARU bandplan breach made by the use of the repeater.
3. Inform the government about the repeater and request them to remove the repeater.

[ANS thanks Trevor, M5AKA for the above information]

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SB SAT @ AMSAT $ANS-247.09
ESA Successfully Repressurizes Satellite With Solid State Stored Gas

AMSAT News Service Bulletin 247.09
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.09

The European Space Agency reported that its August 16 test to re-pressurize gas tanks aboard their Proba-2 spacecraft were successful. Proba-2 was launched on 2 November 2009. Less than a cubic metre in volume, it carries a total of 17 new technologies and four science payloads focused on the Sun and space weather.

According to the ESA, Proba-2 uses a 'resistojet' engine to maintain the microsatellite's orbit at 600 km altitude. This experimental engine runs on xenon gas heated before ejection to provide added thrust.

Laurens van Vliet of Dutch research organisation TNO, which developed the technology explained, "What makes this repressurisation unique is that the added gas was not stored in a pressurised state but produced from a solid material at room temperature, the first of four 'cool-gas generators' on Proba-2. Nitrogen, like xenon, is an inert, non-reactive gas, so the resistojet can work just as well with a xenon-nitrogen mixture."

The bottle-shaped cool-gas generators are filled with a rigid solid material that, once triggered, produces more than 250 times its own volume in pure nitrogen gas. The other three generators will be used later in Proba-2's orbital lifetime.

The original story was published by SpaceDaily.com on their web:
http://tinyurl.com/3rfg4fj (SpaceDaily.com)

[ANS thanks SpaceDaily.com for the above information]

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SB SAT @ AMSAT $ANS-247.10
EduSat Mission to Test PocketQub Satellite Orbital Deployment System

AMSAT News Service Bulletin 247.10
>From AMSAT HQ SILVER SPRING, MD.
September 4, 2011
To All RADIO AMATEURS
BID: $ANS-247.10

The PocketQub is a new satellite standard that was proposed in 2009 by Professor Robert Twiggs, W7RMT at Kentucky's Morehead State University (MSU) for a satellite even smaller than the CubeSat. PocketQubs are 5 cm cubes and can literally fit in a pocket. The PocketQub leverages the CubeSat standard and the revolution in the miniaturization of electronics. PocketQubs will ultimately have a wide range of applications including: Network Nodes, Sensor Systems, Satellite Constellations, Inexpensive, Redundant, and Spatially Organized Earth Remote Sensing Platforms.

Morehead State University's Space Science Center (SSC) and Kentucky Space collaborated with the University of Rome Sapienza Aerospace Engineering School on a series of student-driven educational satellite projects. The goal was for students to develop, build and fly a series of four satellites (EduSat, UNISAT-5, UNISAT-6, and UNISAT-7). These satellites were built in Rome and in Morehead and controlled from MSU by students using the big dish antenna and by Italian students using satellite ground assets in Europe.

EduSat was launched in August, 2011 by a Russian Dnepr rocket from a silo. During its first 30-days on orbit, EduSat will test an orbital deployer designed to release the PocketQub, also called a femto-class satellite. While the femtosats will not be released on the first mission, the deployment system that will ultimately deploy them will be tested. A follow-on mission in 2012 (UNISAT-5) will deploy four femto-class satellites when they are ejected from the UNISAT-5 "mothership" at apogee.

The original story was published by SpaceDaily.com on their web:
http://tinyurl.com/3mgrbkw (SpaceDaily.com)

[ANS thanks SpaceDaily.com for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And with that, please keep in mind the ham while visiting his friend at the hospital pointed to a machine with all sorts of tubes, knobs, lights, and beepers and said, "Wow, I sure wouldn't like being hooked up to that!" The nurse answered, "Me neither, that's the floor cleaning machine!"

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM